
LIBRARY

```
  OOOOOO    TTTTTTTTTT    SSSSSSSS    CCCCCCCC  VV      VV  TTTTTTTTTT  PPPPPPPP      GGGGGGGG
  OOOOOO    TTTTTTTTTT    SSSSSSSS    CCCCCCCC  VV      VV  TTTTTTTTTT  PPPPPPPP      GGGGGGGG
OO      OO      TT      SS          CC          VV      VV      TT      PP      PP  GG
OO      OO      TT      SS          CC          VV      VV      TT      PP      PP  GG
OO      OO      TT      SS          CC          VV      VV      TT      PP      PP  GG
OO      OO      TT      SS          CC          VV      VV      TT      PP      PP  GG
OO      OO      TT        SSSSSS    CC          VV      VV      TT      PPPPPPPP    GG
OO      OO      TT        SSSSSS    CC          VV      VV      TT      PPPPPPPP    GG
OO      OO      TT              SS  CC          VV      VV      TT      PP          GG  GGGGGG
OO      OO      TT              SS  CC          VV      VV      TT      PP          GG  GGGGGG
OO      OO      TT              SS  CC            VV  VV        TT      PP          GG      GG
OO      OO      TT              SS  CC            VV  VV        TT      PP          GG      GG
  OOOOOO        TT      SSSSSSSS    CCCCCCCC        VV          TT      PP            GGGGGG
  OOOOOO        TT      SSSSSSSS    CCCCCCCC        VV          TT      PP            GGGGGG


LL              IIIIII      SSSSSSSS
LL              IIIIII      SSSSSSSS
LL                II      SS
LL                II      SS
LL                II      SS
LL                II      SS
LL                II        SSSSSS
LL                II        SSSSSS
LL                II              SS
LL                II              SS
LL                II              SS
LL                II              SS
LLLLLLLLLL      IIIIII    SSSSSSSS
LLLLLLLLLL      IIIIII    SSSSSSSS
```

Table of Contents

```
0000     1          .TITLE  OTS$CVTPG_R9    Convert Packed to G floating
0000     2          .IDENT  /1-001/         ; File: OTSCVTPG.MAR Edit: PLL1001
0000     3
0000     4 ;
0000     5 ;*****************************************************************************
0000     6 ;*                                                                           *
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0000    24 ;*                                                                           *
0000    25 ;*                                                                           *
0000    26 ;*****************************************************************************
0000    27 ;
0000    28 ; FACILITY: LANGUAGE INDEPENDENT SUPPORT
0000    29 ;++
0000    30 ; ABSTRACT:
0000    31 ;       This module contains the routine that converts packed numbers
0000    32 ;       to g floating.
0000    33 ;
0000    34 ;
0000    35 ;--
0000    36 ;
0000    37 ; VERSION: 1
0000    38 ;
0000    39 ; HISTORY:
0000    40 ;
0000    41 ; AUTHOR:
0000    42 ;       Pamela Levesque, 18-Jan-1982
0000    43 ;
0000    44 ; MODIFIED BY:
0000    45 ;
0000    46 ;
0000    47 ;
```

```
0000     49          .SBTTL  HISTORY          ; Detailed Current Edit History
0000     50
0000     51
0000     52 ; Edit History for Version 1 of OTSCVTPG
0000     53 ;
0000     54 ; 1-001 - Original.  PLL 18-Jan-1982
0000     55
```

```
                        57          .SBTTL  DECLARATIONS
                        58
                        59 ;
                        60 ; INCLUDE FILES:
                        61 ;
                        62          $DSCDEF
                        63
                        64 ;
                        65 ; EXTERNAL SYMBOLS:
                        66          .DSABL  GBL                 ; Prevent undeclared symbols from being
                        67                                      ; automatically global
                        68
                        69          .EXTRN  OTS$CVT_T_G         ; D, E, F, G Conversion routine
                        70 ;
                        71
                        72 ;
                        73 ; MACROS:
                        74 ;        NONE
                        75 ;
                        76
                        77 ;
                        78 ; PSECT DECLARATIONS:
                  00000000  79          .PSECT  _OTS$CODE           PIC, SHR, LONG, EXE, NOWRT,-
                        80                                      USR, CON, REL, LCL, RD
                        81
                        82 ;
                        83 ; EQUATED SYMBOLS:
                        84 ;        NONE
                        85 ;
                        86
                        87 ;
                        88 ; OWN STORAGE:
                        89 ;        NONE
                        90 ;
```

```
0000     92          .SBTTL  OTS$CVTPG_R9
0000     93
0000     94 ;++
0000     95 ; FUNCTIONAL DESCRIPTION:
0000     96 ;
0000     97 ;       Converts packed numbers to g floating.
0000     98 ;
0000     99 ; CALLING SEQUENCE:
0000    100 ;
0000    101 ;       JSB OTS$CVTPG_R9 (scale.rl.v, srclen.rl.v, src.rp.r, dst.wg.r)
0000    102 ;
0000    103 ;       Arguments are passed in R6, R7, R8 and R9.
0000    104 ;
0000    105 ; INPUT PARAMETERS:
0000    106 ;
0000    107 ;       SCALE.rl.v              The power of ten by which the internal
0000    108 ;                               representation of the source must be
0000    109 ;                               multiplied to scale the same as the
0000    110 ;                               internal representation of the dest.
0000    111 ;       SRCLEN.rl.v             The number of digits in the source
0000    112 ;       SRC.rp.r                The number to be converted
0000    113 ;
0000    114 ; IMPLICIT INPUTS:
0000    115 ;
0000    116 ;       All of the trap bits in the PSL are assumed off.
0000    117 ;
0000    118 ; OUTPUT PARAMETERS:
0000    119 ;
0000    120 ;       DST.wg.r                The place to store the converted number
0000    121 ;
0000    122 ; IMPLICIT OUTPUTS:
0000    123 ;
0000    124 ;       NONE
0000    125 ;
0000    126 ; FUNCTION VALUE:
0000    127 ;
0000    128 ;       1 = SUCCESS, 0 = FAILURE
0000    129 ;
0000    130 ; SIDE EFFECTS:
0000    131 ;
0000    132 ;       Destroys registers R0 through R9.
0000    133 ;
0000    134 ;--
0000    135
0000    136
0000    137 OTS$CVTPG_R9::
  5E  28  C2 0000    138         SUBL2   #40,SP                  ; Space for temp string and result
08 AE  1F  68  57  08 0003    139         CVTPS   R7,(R8),#31,8(SP)       ; Make a separate sign string
                   0009    140 ;
                   0009    141 ; Make a descriptor for the leading separate string.
                   0009    142 ;
     53  DD        0009    143         PUSHL   R3                      ; Address = temp string
   7E  01  90      000B    144         MOVB    #DSC$K_CLASS_S,-(SP)    ; Class = static
   7E  0E  90      000E    145         MOVB    #DSC$K_DTYPE_T,-(SP)    ; Data type = ASCII text
   7E  20  B0      0011    146         MOVW    #32,-(SP)               ; Length = 32 bytes
                   0014    147 ;
                   0014    148 ; Now call the conversion routine.
```

```
                                0014   149 ;
                7E    56   CE   0014   150          MNEGL   R6,-(SP)                ; Scale factor
                      00   DD   0017   151          PUSHL   #0                      ; Digits in fraction
                  10  AE   9F   0019   152          PUSHAB  16(SP)                  ; Address of result area
                  0C  AE   9F   001C   153          PUSHAB  12(SP)                  ; Address of descriptor
00000000'GF       04   FB   001F   154          CALLS   #4,G^OTS$CVT_T_G        ; Call the routine
                  0C   50   E9   0026   155          BLBC    R0,2$                   ; Failure, must be overflow
           69     08  AE  50FD   0029   156          MOVG    8(SP),(R9)              ; Store result
                50    01   D0   002E   157          MOVL    #1,R0                   ; Indicate success
                5E    30   C0   0031   158 1$:      ADDL2   #48,SP                  ; Delete stack temps
                           05   0034   159          RSB                             ; Return
                                0035   160 ;
                                0035   161 ; Come here on overflow to store the reserved operand.
                                0035   162 ;
           69   01    0F   79   0035   163 2$:      ASHQ    #15,#1,(R9)             ; Store reserved operand
                      50   D4   0039   164          CLRL    R0                      ; Indicate failure
                      F4   11   003B   165          BRB     1$                      ; Delete stack temps and return
                                003D   166 ;
                                003D   167          .END
```

```
DSC$K_CLASS_S                   = 00000001
DSC$K_DTYPE_T                   = 0000000E
OTS$CVTPG_R9                      00000000 RG    02
OTS$CVT_T_G                       ********   X   00
```

Psect synopsis

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
ABS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
_OTS$CODE	0000003D (61.)	02 (2.)	PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC LONG

Performance indicators

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.05	00:00:00.96
Command processing	110	00:00:00.33	00:00:03.29
Pass 1	132	00:00:01.14	00:00:05.50
Symbol table sort	0	00:00:00.09	00:00:00.10
Pass 2	42	00:00:00.29	00:00:01.27
Symbol table output	2	00:00:00.01	00:00:00.01
Psect synopsis output	2	00:00:00.01	00:00:00.01
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	320	00:00:01.92	00:00:11.14

```
The working set limit was 1050 pages.
8057 bytes (16 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 133 non-local and 2 local symbols.
167 source lines were read in Pass 1, producing 10 object records in Pass 2.
8 pages of virtual memory were used to define 7 macros.
```

Macro library statistics

Macro library name	Macros defined
_255DUA28:[SYSLIB]STARLET.MLB;2	4

```
190 GETS were required to define 4 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS$:OTSCVTPG/OBJ=OBJ$:OTSCVTPG MSRC$:OTSCVTPG/UPDATE=(ENH$:OTSCVTPG)
```

OTSCVTPD
LIS

OTSCVTTF
LIS

OTSCVTRFP
LIS

OTSCVTRT
LIS

OTSCVTTOL
LIS

OTSCVTPG
LIS

OTSCVTTR
LIS

OTSCVTRHP
LIS

OTSLINKAG
LIS

OTSCVTRDP
LIS

OTSCVTTIL
LIS

OTSCVTTLL
LIS

OTSCVTPF
LIS

OTSCVTRGP
LIS

OTSMOVE
LIS

OTSMSG
LIS

OTSCVTPH
LIS

OTSLUN
LIS